

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

- 1) (currently amended) A method for determining the sequence of a nucleic acid molecule, comprising the steps of[[;]]:
 - a) providing a single-stranded form of said nucleic acid molecule;
 - b) hybridizing a primer to said single stranded form of said nucleic acid molecule to form a template/primer complex;
 - c) enzymatically extending the primer by the addition of a polymerase and a mixture of at least one nucleotide and at least one labeled derivative of the at least one nucleotide, wherein the at least one labeled derivative of the at least one nucleotide comprises a label linked to the nucleotide via a cleavable link and wherein the amount of labeled derivative of the at least one nucleotide in said mixture of the at least one nucleotide and the labeled derivative of the at least one nucleotide is within the range of 1-50 mole-%[[,]];
~~1-40 mole-%, 1-30 mole-%, or 1-20 mole-%.~~
 - d) determining the type of nucleotide added to the primer and thereafter neutralizing the label by adding a label-interacting agent or by bleaching; and
 - e) repeating steps c) to d) at least once.

2) (currently amended) [[A]] The method according to claim 1, in which the amount of labelled derivative of the at least one nucleotide in said mixture is within the range of 5-50 mole-%, ~~5-40 mole-%, 5-30 mole-%, or 5-20 mole-%.~~

3) (currently amended) [[A]] The method according to claim 1, in which the amount of labelled derivative of the at least one nucleotide in said mixture is within the range of 10-50 mole-%, ~~10-40 mole-%, 10-30 mole-%, or 10-20 mole-%.~~

4) (currently amended) [[A]] The method according to claim 1, wherein the single-stranded form of said nucleic acid molecule is attached to a carrier.

5) (currently amended) [[A]] The method according to claim 4, wherein ~~the the~~ a means mechanism for attachment to the carrier is a selected from the group of: [[a)] specific binding to a hydrophobic compound, an oligonucleotide, an antibody or a fragment thereof, a protein, a peptide, an intercalating agent, biotin, streptavidin or avidin; or b) covalent coupling using an amino-linker and an epoxy-treated carrier.

6) (currently amended) [[A]] The method according to claim 4, wherein the carrier is selected from the group of a gel, a solid or porous bead, a surface or a fiber.

7. (canceled)

8) (currently amended) [[A]] The method according to claim [[7]] 1, in which the label is neutralized by bleaching and the bleaching is performed by photo-bleaching.

9) (currently amended) [[A]] The method according to claim 1 in which the link between the incorporated nucleotide and the label is cleaved after step d).

10) (currently amended) [[A]] The method according to claim 1, in which the link between [[the]] a fluorophore and nucleotide is a disulfide bond.

11) (currently amended) [[A]] The method according to claim 10 in which the cleavage is performed by the addition of a reducing agent, thereby exposing a thiol group to provide an exposed thiol group.

12) (currently amended) [[A]] The method according to claim 10, in which the exposed thiol group is capped by a ~~suitable~~ reagent, ~~such as iodoacetamide or N-ethylmaleimide.~~

13) (currently amended) [[A]] The method according to claim 1, in which [[the]] a linker between [[the]] a disulfide bridge and the base is shorter than 8 atoms.

14) (currently amended) [[A]] The method according to claim 1, in which [[the]] step c) is performed at a pH below 7, ~~preferably at a pH below 6.5, or more preferably at a pH below 6.~~

15) (currently amended) [[A]] The method according to claim 1, in which the derivative of said nucleotide is a dideoxynucleotide or an acyclic nucleotide analog.

16) (currently amended) [[A]] The method ~~according to~~ claim 1, wherein the label is neutralized with an agent and the agent is selected from the group consisting of ~~in which an agent chosen from the group comprising the following,~~ alkaline phosphatase, Ppi-ase, apyrase, dimethylsulfoxide, polyethylene glycol, polyvinylpyrrolidone, spermidine, detergents, ~~such as~~ NP-40, Tween 20, [[and]] Triton X-100, ~~various~~ proteins that affect secondary structure of DNA, ~~including~~ Single Stranded DNA Binding Protein (SSB) [[or]] and [[the]] a protein of Gene 32, ~~is added.~~

Docket No. 1501-1276
Application No. 10/510,107

17-18. (canceled)